

CONTENTS Personal orders book chart and photographs from the Moon...
 instructions for the Moonflight... your step-by-step your Moon exploration orders... wallchart showing how the Apollo spacecraft and Saturn rocket work together... jargon along Lunar flight-path... touchdown that the astronauts use, etc., etc., etc.

12/6

TEN ITEMS

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Astronaut's Jargon



ABLATION. To lose heat by vaporising or melting as in use of ablative heat shield during Apollo's re-entry into Earth atmosphere.

ABORT. Premature end to a mission due to failure or malfunction.

ANTENNA. An aerial for receiving and transmitting radio or radar signals.

APOLLO CREW. *Spacecraft Commander.* Has overall command of crew and mission. *Command Module Pilot.* Responsibility for all spacecraft systems and engineering. *Lunar Module Pilot.* Performs duties of engineer and reserve spacecraft pilot. Pilots Lunar Module. All crew members can duplicate roles.

ATMOSPHERE (Earth). The envelope of air surrounding the Earth, about 100 miles deep.

ATTITUDE CONTROL SYSTEM (ACS). The system that turns and maintains a spacecraft in a required direction.

BIOMEDICAL. Concerning the functioning of the human body, i.e. temperature, pressure, heartbeat, respiration, etc.

BIO-PHYSICS. The medical science for studying effects of spaceflight on the human body.

BIOSENSORS. Small devices attached to the skin of an astronaut which measure and record biomedical data. See Biomedical.

BLUNT-END-FIRST. In conical spacecraft. Positioning the craft so that the point of the cone faces backwards, flat base forwards.

BURN. A period of thrust in a rocket vehicle.

BURNOUT. End of a period of thrust in a rocket vehicle.

CALISTHENICS. A system of exercises for the human body by pushing, pulling various limbs and muscles.

CAPSULE. Small, sealed, pressurised cabin which will support living things in space.

CHECKOUT. Sequence of actions to examine readiness of a rocket or spacecraft for its tasks.

CIRCUMLUNAR. Circling the Moon.

COASTING. The flight of a vehicle when the power has been cut off.

COMMAND MODULE (CM). The compartment in a spacecraft which contains the crew and main controls.

COMMAND AND SERVICE MODULES (CSM). Description of the Apollo Spacecraft when consisting of these two modules.

COMMIT POINT. A critical point in a space mission when the Spacecraft Commander has assessed conditions and commits the mission to the next phase. A commit point usually coincides with a major expenditure of fuel reserves.

COMPLEX. Entire area of launch site.

CONSOLE. Display of controls and indicators used for observing and controlling a flight.

COSMIC RAYS. High-energy, positively charged particles from space.

COUNTDOWN. A count in inverse numerical order of the time remaining before beginning a phase of a flight, or launch.

CUT-OFF. Abrupt shutting off of fuel-flow to a rocket engine.

DATA. Information.

DECOMPRESSION. Loss of pressure, as when a spacecraft is punctured.

DOCKING. Connecting two craft together in space.

DROGUE PARACHUTE. A parachute to slow down capsule. Used before main parachute opens.

ELLIPTICAL ORBIT. The usual orbit of a satellite. An elongated circle.

ENVIRONMENTAL SYSTEMS. Spacecraft systems designed to reproduce atmospheric conditions similar to those found on Earth.

ESCAPE VELOCITY. The speed required to escape from the gravitational pull of a planet.

EXPLOSIVE BOLT. A bolt fitted with an explosive which, when detonated, destroys the bolt and causes two joined modules to separate.

FREE GLIDE. See coasting.

G. Force equal to Earth gravity. Thus 5G equals five times Earth gravity.

GO. 'Go condition' - indicating normal functioning, and readiness to proceed with a mission phase.

GRAVITY. The pull imparted by a planet on bodies on, or near to, that planet.

GUMDROP. Nickname and code word used by Apollo astronauts to describe Command and Service Modules.

GUIDANCE SYSTEM. A collective term describing all devices in a spacecraft which calculate position and navigate the craft.

HOLD. To halt a countdown, usually due to a malfunction.

HOUSTON CONTROL. The Control Centre at Houston, Texas, which will provide ground control for all phases of the Apollo Mission after launch.

HOVER. To remain stationary above a fixed point on the ground.

INJECTION. Putting a spacecraft into orbit, or on a desired flight path.

INTERCOM. Short for intercommunication, or communication, by voice telephone.

INTER-ORBITAL TRANSFER. Transfer from one orbit to another.

JETTISON. Throw off, allow to drop away.

KENNEDY CONTROL. The control centre at Cape Kennedy, Florida, which will provide ground control for the launch phase of the Apollo Mission.

LAUNCH. A spacecraft that is carried aloft by another rocket is said to be launched.

LAUNCH PAD. A base from which a rocket is fired.

LAUNCH VEHICLE. The complete rocket excluding the spacecraft.

LAUNCH WINDOW. An interval of time and space favourable to a rocket launch for a specific purpose.

LAUNCHING TOWER. Also 'gantry'. A tower designed for the fuelling and checking of rockets before launch.

LIFE SUPPORT. (Systems Pack). See Environmental systems. Devices designed to provide an astronaut with the basic requirements to maintain life, i.e. air, atmospheric pressure, reasonable temperature, etc.

LIFT-OFF. Vertical ascent from the ground performed by a rocket.

LINE OF SIGHT. Uninterrupted space between two points, without any obstacles in between.

LUNAR. Relating to the Moon.

LUNAR EXCURSION. The phase of exploration by astronauts on the surface of the Moon.

LUNAR ORBIT. An orbit around the Moon.

LUNAR SPACE. That part of space in which the gravitational attraction of the Moon is predominant.

MALFUNCTION. Breakdown or partial failure.

METEOR. A small body moving in space. From Earth, is seen as a luminous trail in the sky, but cannot be seen in space.

MISSILE. An object thrown, dropped, fired, launched, or otherwise projected to strike a target.

MODULE. A self-contained unit of a spacecraft, which is part of the complete unit.

MONITOR. To keep track of. To observe a vehicle or its systems during flight.

NASA. The National Aeronautics and Space Administration, the government authority which controls all U.S. national aerospace activities.

NO GO. (See also 'GO'). Inability to proceed with a mission due to failure or malfunction.

ON-BOARD COMPUTER. The computer located in a spacecraft.

ORBIT. The path of a spacecraft under the influence of gravitational and other forces.

ORBITAL PERIOD. The time taken by a spacecraft to complete one orbit.

ORBITAL VELOCITY. The velocity at which a spacecraft travels around a planet.

PARKING ORBIT. Orbit in which a spacecraft awaits the next phase of its mission.

POST-LANDING BEACON. A flashing light on the outside of the Command Module which is activated after splashdown to attract recovery helicopters and ships.

PRESSURE SUIT. A suit and helmet worn by astronauts which provide duplicate of Earth atmosphere.

PRESSURISED. A body containing air at a pressure that is higher than the pressure outside.

PURGING. Getting rid of unused fuel from a fuel line or tank.

RADAR ALTIMETER. A radar instrument for measuring height above a surface.

RADIATION. Energy emitted in the form of waves, high levels being lethal.

RADIOASTRONOMY. Study of the stars by detection of radio waves instead of light.

RE-ENTRY. The return of a spacecraft into the earth's atmosphere.

RE-ENTRY VEHICLES. Capsules designed to withstand the heating associated with re-entry.

RE-ENTRY WINDOW. The area at the limits of the Earth's atmosphere through which a spacecraft must pass in order to re-enter successfully.

RELATIVE SPEED. The apparent speed of a moving spacecraft as seen by an observer in another moving spacecraft, i.e., if spacecrafts A and B are on identical flight paths and the speed of spacecraft A is 25,000 mph when the speed of B is 25,005 mph, then the relative speed of B to A is 5 mph.

RENDEZVOUS. The event of two or more spacecraft meeting at a specific time and place in space.

RETRO ROCKETS. A rocket fired to reduce the forward motion of a spacecraft.

REVERSAL PROCEDURE. The sequence of events required to turn a spacecraft through 180° relative to its flight path.

ROCKET. Jet propulsion which can occur outside the atmosphere. A vehicle propelled by a rocket.

ROCKET CLUSTER. A group of rockets assembled in one stage.

ROCKET ENGINE. A rocket using liquid propellant (fuel).

ROCKET MOTOR. A rocket using solid fuel.

SENSOR. An electronic device which receives signals, converts them and measures direction or movement.

SERVICE MODULE. The compartment or section of a spacecraft that houses fuel, navigation equipment, propulsion systems, etc.

SOLAR BATTERY. A device containing a large number of solar cells.

SOLAR CELL. A cell that converts sunlight into electrical energy.

SOLAR FLARE. An eruption on the Sun which produces bursts of very high radiation, dangerous to space travellers.

SOLAR RADIATION. Energy radiated from the Sun.

SOLAR SENSORS. Light sensitive devices which indicate the direction of the Sun (see sensor).

SOLAR WIND. Constant stream of ionized gas atoms from the Sun.

SPACE ENVIRONMENT. The conditions found in space, i.e., a vacuum, temperatures between 1000°F and -459°F, zero gravity state, radiation, etc.

SPACECRAFT. Manned and unmanned devices designed for space flight.

SPHERICAL ORBIT. A circular orbit. Due to the non-spherical shape of the Earth and Moon, true spherical orbits are impossible to achieve. A 'spherical orbit' is only, in fact, near-circular.

SPIDER. Nickname and codeword for Apollo Lunar Module arising from visual similarity to that insect.

STAGE. A self-contained propulsion system which accelerates a rocket vehicle to a desired velocity, then is jettisoned. A vehicle may have several stages which operate in sequence.

SYSTEMS. A term for the various complex devices in a spacecraft.

TELEMETRY. System for radioing across space information such as instrument readings, recordings, etc.

TERMINATOR. That line on a plane surface where sunlight ends and darkness begins.

THRUST. Propulsive force.

TOUCHDOWN. Space equivalent of 'landing' as with an aircraft.

TRACKING STATION. A station which tracks a spacecraft across space by means of radio and radar.

TRACKING SYSTEM. A means of following the flight of, and finding out the position of a spacecraft by radar and radio located either in the spacecraft or on Earth.

TRAJECTORY. The flight path of a rocket or spacecraft.

TRANSFER ORBIT. The flight path of a spacecraft when transferring from one orbit to another.

TRANS-LUNAR COAST. (See 'Coasting'.) Coasting from Earth to Moon.

WEIGHTLESSNESS. Absence of gravity, as in orbit, when gravitational attraction is opposed by equal and opposite forces.

ZERO GRAVITY. (Zero G.) Weightlessness.

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Spacecraft Commander's Briefing Kit puts you inside Apollo to share every hour of flight and lunar exploration

TOUCHDOWN ON THE MOON

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